Contract for Manpower and Personnel Research and Studies II (COMPRS II) for the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) -- Annual Report: Year One

Human Resources Research Organization

Office of the Technical Director
Zita M. Simutis, Technical Director

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U.S. Army Research Institute
for the Behavioral and Social Sciences

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U.S. Army Research Institute
for the Behavioral and Social Sciences

A Directorate of the U.S. Total Army Personnel Command

EDGAR M. JOHNSON
Director

Research accomplished under contract
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Technical review by

Judith E. Brooks

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14. ABSTRACT *(Maximum 200 words)*:

This report documents and summarizes the activities of the first year of a 5-year (1 base year and 4 option years) project to provide the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) short- and medium-term scientific and technical support services in the solution of problems related to manpower and personnel. The program is referred to as the Contract for Manpower and Personnel Research and Studies II (COMPRS II). HumRRO's primary responsibilities are to administer COMPRS II for ARI under firm fixed price contracts by managing three interrelated tasks: (a) managing the COMPRS II program in accordance with established operating procedures; (b) receiving and processing individual Statements of Tasks from ARI; and (c) managing, reporting progress on, and documenting the completion of delivery orders. Thirteen delivery orders, documented in this report, were awarded during the first year.

15. SUBJECT TERMS

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CONTRACT FOR MANPOWER AND PERSONNEL RESEARCH AND STUDIES II (COMPRS-II) ANNUAL REPORT – YEAR ONE

CONTENTS

List of Tables

Contract for Manpower and Personnel Research and Studies II (COMPRS-II)
Annual Report-Year One

Introduction

This report documents the first year of a 5-year (1 base year and 4 option years) project to provide the U.S. Army Research Institute (ARI) non-personal, short- and medium-term scientific and technical support services in the solution of problems related to manpower and personnel. The program is referred to as the Contract for Manpower and Personnel Research and Studies II (COMPRS-II). HumRRO's primary responsibilities are to administer COMPRS-II for ARI under firm fixed-priced contracts by managing three inter-related tasks: (a) managing the COMPRS program in accordance with established operating procedures; (b) receiving and processing individual Statements of Tasks from ARI; and (c) managing, reporting progress on, and documenting completion of delivery orders.

There are three programs under COMPRS-II. They are summarized below and are described in detail in Appendix A:

- **Quick Reaction (QR) Program** - Intended to provide ARI responsive, short-term research or studies and analysis dealing with manpower and personnel issues for which ARI in-house capability is not available. Each of the QR Program delivery orders (DOs) shall be completed within a period of time specified in the DO, with the maximum allowable completion normally being within 12 months of the date of the DO.

- **Attitude and Opinion Survey (AOS) Program** - Intended to give ARI the ability to conduct surveys to provide information for accession and force management decision-making. Each of the AOS Program DOs shall be completed within a period of time specified in the DO, with the maximum allowable completion normally being within 12 months of the date of the DO or 18 months if OMB approval is required.

- **Medium-Term (MT) Program** - Intended to give ARI the ability to conduct a limited number of research efforts or studies and analyses whose duration would not normally exceed 24 months after the contractor receives the DO.

Summary of Activities

During this first year of the contract, 13 DOs were initiated, to include DO# 0001 which provides for the overall management of COMPRS-II. The remaining 12 DOs were divided among the three program areas as follows: QR Program, 10 DOs; AOS Program, 1 DO; and MT Program, 1 DO. Table 1 summarizes DO activity for this first contract year. Table 2 summarizes the total first year DO award amounts associated with each program.

Table 1. Summary of Delivery Order Activity

	Year 1
Number DOs initiated	13
Contract Administration	1
Quick Reaction	10
Attitude/Opinion Survey	1
Medium Term	1
Number active DOs as of August 9, 1999	12

Table 2. Summary of Program Costs

	Year 1
Contract Administration	$ 26,010
Quick Reaction	$ 1,978,345
Attitude/Opinion Survey	$ 87,603
Medium Term	$ 306,468
Total cost as of August 9, 1999	$ 2,398,426

Summaries for each DO initiated during the first year of the contract follow. Each summary provides the following information:

- The DO number and title.

- The program area.

- The DO contracting officer's representative (DO-COR), assistant DO-COR, if one is assigned, and the contractor's project director.

- The DO status (either ongoing or completed), to include the dates.

- The project background.

- The objectives of the project.

- The key deliverables of the DO.

- Findings/outcomes for completed DOs.

- Report citations for completed DOs.

These summaries are not intended to provide significant detail about each DO; that information can be provided by the DO-COR upon request. The summaries are intended to give a very brief overview of each effort as well as to provide a snapshot of the contract's activities.

DO# 0001	Title: Year 1 Contract Administration
Program Area QR ____ AOS ____ MT ____	**DO-COR**: Dr. Judith Brooks **DO-ACOR**: **Project Director**: Dr. Deirdre Knapp

Status: Ongoing (August 20, 1998-November 19, 1999)

DO Summary

Background: Providing information on manpower and personnel issues to Army decision-and policy-makers is often a complex, dynamic, multi-stage, iterative process. The accuracy and timeliness of information provided to decision makers are of paramount importance in the quality of decisions and policies. Over the next decade, the U.S. Army will experience an increasing requirement to bring individuals into the Army who are trainable in a wide variety of skill areas. To meet and maintain its high quality manpower needs of the 1990s, the Army will have to develop and implement programs that allow it to locate, assess, assign, and use human resources more efficiently and effectively than it ever has before. As new Army policies are being developed to enhance the Army's ability to man the force, the Army needs programs of research and studies that will provide a quick response mechanism to gather and analyze data on the expected or actual short-term effectiveness of those policies.

Scientific and technical support services are being used that lead to the development and implementation of programs of research and studies on the expected or actual effectiveness of Manpower, Personnel, and Training (MPT) programs. These efforts are part of ARI's MPT program to man the force by conducting research and studies to improve the Army's ability to recruit, identify, assess, classify, assign, lead, train, and maintain the personnel required for the Army

Project Objectives: The objectives of this delivery order are to administer the Contract for Manpower and Personnel Research and Studies II (COMPRS-II) for ARI under firm fixed-priced contracts by managing three inter-related tasks: (a) managing the COMPRS program in accordance with established operating procedures; (b) receiving and processing individual Statements of Tasks from ARI; and (c) managing, reporting progress on, and documenting completion of delivery orders.

Key Deliverables: The following Delivery Orders were issued during Year 1:
- DO 0001 Year 1 Contract Administration
- DO 0002 Soldier Characteristics for the 21st Century: Phase II: Execution
- DO 0003 Transition and Training for the Total Army Transition Division Contract Quality Assurance Program
- DO 0004 Summary Report on Retention and Reacquisition of Knowledge and Skills
- DO 0005 Update LROC/SOC Database and Construct a SOC Longitudinal Database
- DO 0006 Initial Data Collection and Preliminary Analyses for Recruiting and Training Excellence (1st Rate)
- DO 0007 Pre-Implementation Research on the Assessment of Individual Motivation (AIM): Data Analysis
- DO 0008 Update of the U.S. Army Research Institute's Officer Personnel Research Data Bases for 1997 and 1998
- DO 0009 Training Base Attrition Study – I
- DO 0010 Task Knowledge Commonality Model (TKCAM) Application for MOS 11B, MOS 11H, and MOS 11M
- DO 0011 Preparation of ARI Special Report on the Enlisted Personnel Allocation System (EPAS)
- DO 0012 Data Collection Support for TRADOC-99-CEP-0101, Manned and Unmanned Aerial Platform Operations on the Digitized Battlefield (Air Maneuver Recon Teams)
- DO 0013 Automated Data Collection System Modification and Development

Findings/Outcomes:

Report Citations: Human Resources Research Organization. (1999). *COMPRS-II Year 1 – Standard Operating Procedures (SOP)* (Study Note 99-01). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

DO# 0002	Title: Soldier Characteristics for the 21st Century: Phase II: Execution
Program Area QR _X_ AOS ____ MT ____	**DO-COR**: Dr. Michael Rumsey **DO-ACOR**: **Project Director**: Dr. Laura Ford

Status: Ongoing (September 13, 1998 – September 30, 1999)
DO Summary
Background: On 21 March 1997, MG Arthur T. Dean, Director of Military Personnel Management, Deputy Chief of Staff for Personnel, requested that ARI "immediately undertake a 'quick study' to determine the desired characteristics, qualities and aptitudes for the enlistee of the 21st century." ARI responded with a two-part program, known as Soldier21. The first part, involving a review and summary of available information supplemented by a "target of opportunity" data collection, was completed and reported to MG Dean in January 1998. The second part is a more comprehensive effort involving the collection of new data. In May 1998, a contract effort was initiated to develop the methodology for this second part and to examine how the execution of this methodology and the execution of a related project, 21st Century NCOs (NCO21), could be merged for optimum efficiency.   This study addresses two separate issues for the future Army: determining the most important knowledges, skills and abilities (KSAs) for soldier selection (Soldier21) and identifying the most important KSAs for promotion to and within the noncommissioned officer (NCO) ranks (NCO21). The future Army eras that are explored are Army XXI (2000-2010) and the Army After Next (2010-2025). The Soldier21 study is an attempt to anticipate changes that should be considered for the Army selection and classification systems so as to select enlisted applicants who can better meet the task demands of the Army in the next century. The NCO portion of the project examines the battlefield of the future and how it will require NCOs who can train forces to operate effectively in digital environments with increased mission diversity, fewer soldiers, and numerous organizational and social changes. The NCO promotion system for the 21st century will need new measurement procedures to evaluate the full scope of performance needed to successfully meet future job requirements. To do so, jobs, units, and missions that are indicative of future conditions are examined and analyzed in order to outline the KSAs that could be utilized in a future performance-based promotion system. In other words, the Soldier21/NCO21 study explores the factors that will affect jobs in the future. In turn, the KSAs or other individual attributes that will be needed to succeed in the Army of the future are identified.
Project Objectives: The objectives for this delivery order are to identify soldier requirements in two future Army eras in terms of (a) the required characteristics to effectively perform the job of a first term enlisted soldier, and (b) the individual attributes to effectively perform at three levels of NCO jobs – Junior NCOs (Corporal E4-E5), Mid-level NCOs (E6-E7), and Senior NCOs (E8-E9). Another objective is to identify potential alternative measures for the attributes identified as critical in the 21st century Army.
Key Deliverables: Key deliverables for this effort consist of (a) a summary of future conditions relevant to Army jobs, (b) a summary of forecasted job demands, and (c) a final technical report.
Findings/Outcomes:
Report Citations:

DO# 0003	Title: Transition and Training for the Total Army Transition Division Contract Quality Assurance Program
Program Area QR ____ AOS ____ MT __X_	DO-COR: Ms. Susan Harvey, ASA (M & RA [HR XXI]) DO-ACOR: Ms. Naomi Lynch, ASA (M & RA [HR XXI]) Project Director: Mr. Eric Wetzel
Status: Ongoing (September 11, 1998 –June 30, 2000)	
DO Summary	
Background: HumRRO has a long history with the Transition Acquisition Branch (TAB) of the Total Army Transition Division (TATD) which includes support of quality assurance (QA) program and management information system (MIS) development. These two programs are critical to an organization such as the TAB, which monitors a five billion dollar indefinite quantities contract (IQC) providing human resources support services to the Army and other federal government agencies. On 23 February 1999, TAB was transferred from PERSCOM to the Assistant Secretary of the Army for Manpower and Reserve Affairs (ASA [M&RA]). The organization formally known as TAB is now the Human Resources XXI office (HR XXI). Under ASA (M&RA), the market and potential uses of the IQC have expanded and the possibility of the HR XXI office operating under a cost reimbursable format is being considered. These organizational and potential functional changes necessitated modifications to both the QA program and MIS along with the development of a business and marketing plan for HR XXI's use in a cost reimbursable environment.	
Project Objectives: The objectives of this delivery order are to provide HR XXI with the necessary support to make a smooth transition to their new organizational structure and to lay the ground work for their expanded mission while updating/finalizing the QA program and MIS developed under a previous COMPRS-I delivery order.	
Key Deliverables: The final deliverables for this project include a revised QA program, as well as MIS and business and marketing plans for the re-focused organization.	
Findings/Outcomes:	
Report Citations:	

DO# 0004	Title: Summary Report on Retention and Reacquisition of Knowledge and Skills
Program Area QR _X_ AOS ____ MT ____	**DO-COR**: Dr. Robert Wisher **DO-ACOR**: **Project Director**: Dr. Deirdre Knapp (with Dr. John Ellis of K. Ellis Human Resources Services & Consulting)
Status: Completed (September 16, 1998 – July 30, 1999)	
DO Summary	
Background: ARI required assistance from an expert in the field of learning and memory to prepare a summary review of research on skill retention and reacquisition. The summary review, approximately 20 pages in length, was to cover research done by ARI and other military laboratories in remembering skills taught in the classroom and field for periods of up to several years.	
Project Objectives: The objective of this effort was to provide a non-technical document with supporting photographs and graphic material to inform the military reader of the importance and value of research on skill retention and reacquisition.	
Key Deliverables: The key deliverable was a final report	
Findings/Outcomes: The report has been completed and published as an ARI Special Report.	
Report Citations: Wisher, R.A., Sabol, M.A., & Ellis, J.A. (1999). *Staying Sharp: Retention of Military Knowledge and Skills* (ARI Special Report 39). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.	

DO# 0005	Title: Update LROC/SOC Database and Construct a SOC Longitudinal Database
Program Area QR ___ AOS _X_ MT ___	**DO-COR**: Ms. June T. Jones **DO-ACOR**: **Project Director**: Dr. Gina Medsker

Status: Ongoing (September 25, 1998 – August 31, 1999)
DO Summary
Background: ARI has been conducting surveys of officer attitudes for several years, including the Longitudinal Research on Officer Careers (LROC) surveys in 1988, 1989, 1990, and 1992, and the Survey of Officer Careers (SOC) in 1996 and 1998. The purpose of this effort is to produce both a Longitudinal Database and a Trend Database for ARI. The databases will be used to continue monitoring Army officers on issues of concern to the Army and the officer corps. Current SOC results, in conjunction with previous SOC and LROC results, will help the Army understand what happens to officers during their careers and the types and extent of impacts that events, behaviors, and attitudes/opinions have on officers' career plans. Results of the 1998 SOC will also help the Army track officer reactions to the new Officer Personnel Management System XXI (OPMS XXI).
Project Objectives: The objectives of this project are to provide (a) a fully documented SOC Longitudinal Database that includes respondents who have data for both 1996 and 1998 SOC surveys, (b) a SOC Trend Database which adds the 1998 SOC Cross-Sectional Database to the existing LROC/SOC database, and (c) a set of charts displaying the results for both the SOC Longitudinal and Trend Databases.
Key Deliverables: Key deliverables include an edited 1998 SOC raw data file and final editing program, the 1996-98 SOC Longitudinal Database and codebook, the SOC-LROC Trend Database and codebook, and charts for all items that appeared in both the 1996 and 1998 SOC based on the 1996-1998 Longitudinal Database.
Findings/Outcomes:
Report Citations:

DO# 0006	**Title**: Initial Data Collection and Preliminary Analyses for Recruiting and Training Excellence (1st Rate)
Program Area QR _X_ AOS ___ MT ___	**DO-COR**: Dr. Trueman Tremble **DO-ACOR**: **Project Director**: Dr. Bill Strickland

Status: Ongoing (September 28, 1998 - December 31, 1999)
DO Summary

Background: In 1996, the Office of the Assistant Secretary of the Army (Manpower and Reserve Affairs; ASA M&RA) asked ARI to draft a broad-based proposal for carrying out a five- to six-year comprehensive, integrated research program examining the multiple causes of first-term Army enlisted attrition. This proposal suggests that variables influencing attrition include personal variables (e.g., expectations, values, and background), organizational variables (e.g., culture and climate within the Army), and extra-organizational variables (e.g., attitudes of significant others, opportunities for civilian employment). When considered in combination, these variables determine the individual's "fit" within the organization and the likelihood that he or she will be successful in the Army.

In support of this long-term effort, ARI developed a multi-phased project. Phase I of the project began in August 1997 and was completed in January 1998. The objective for that initial phase was to develop and assess a prototype database for tracking first-term enlisted attrition. The results from Phase I established the methodology for developing comprehensive attrition databases for subsequent phases.

Phase II of the project was begun in June 1998 and will end in October 1999. Phase II has three primary objectives: (a) design and plan the overall five- to six-year attrition effort which incorporates both longitudinal and concurrent designs; (b) develop comprehensive sampling plans for both the longitudinal and concurrent designs; and (c) develop, field test, and gain approval for appropriate surveys and other measures in preparation for the data collection phases.

The current project is Phase III of the attrition program. The objectives of Phase III are to execute the initial data collection phase of the study and to conduct preliminary analyses of the data. Data from a subset of fiscal year 1999 soldiers entering training will serve as a longitudinal cohort to be followed through their first-term of enlistment. Concurrent samples of soldiers in various stages of their first-term will be collected and used for comparison.

Project Objectives: There are two objectives of this effort:
1. To execute the initial data collection phase of the attrition research program using the research measures, data collection plan, and sampling plan developed in Phase II of the project.
2. To conduct preliminary analyses of the data collected during this phase.

Key Deliverables: Technical Report

Findings/Outcomes:

Report Citations:

DO# 0007	Title: Pre-Implementation Research on the Assessment of Individual Motivation (AIM): Data Analysis
Program Area QR _X_ AOS ___ MT ___	DO-COR: Dr. Mark Young DO-ACOR: Project Director: Dr. Brian Waters

Status: Ongoing (September 28, 1998 – November 30, 1999)

DO Summary

Background: Over the past decade, there has been a resurgence of interest in using personality (or temperament) assessments for personnel decisions. The military has been no exception. The Assessment of Background and Life Experiences (ABLE) was designed to assess six personality constructs that were identified as having a potential to be predictive of job-related criteria. Research indicated that, while the ABLE had predictive validity for certain aspects of job performance and for first-term attrition, it was also susceptible to the effects of faking and coaching. Also, while evidence of the predictive validity of ABLE was found for various criteria in the standard instruction condition, the validities were near zero for the same criteria in the faking and coaching conditions. At least in part on the basis of these results, the ABLE was not operationally implemented in the Army.

ARI developed the Assessment of Individual Motivation (AIM) in an effort to build an assessment tool that would provide scores for the constructs measured by ABLE, but in a way that was resistant to the effects of faking and coaching. Preliminary research using the AIM indicated that the instrument was predictive of first-term attrition and was less susceptible to the effects of faking and coaching than the ABLE. These positive preliminary findings peaked the Army's interest in using the AIM as a pre-enlistment screen for attrition, and a program of research was initiated to (a) determine whether the use of AIM for pre-enlistment screening would be viable for the Army and (b) remove obstacles to its implementation.

This delivery order extends the AIM development work begun under Delivery Order # 75 of COMPRS-I.

Project Objectives: The project objectives are as follows:
1. Create the database needed for carrying out AIM Phase I research.
2. Determine the validity of the existing AIM against 3-month attrition.
3. Refine and evaluate two initial AIM alternate forms.
4. Create and evaluate revised AIM alternate forms.
5. Conduct research required to establish testing policies for those applicants who have high scores on the faking scale or who score below the AIM cut score.
6. Assess the potential for adverse impact in the AIM.

Key Deliverables: Key project deliverables are:
1. SAS dataset and code book
2. Alternate AIM forms
3. Plans for faking policy research and for policy research on applicants who fail AIM
4. Final report

Findings/Outcomes:

Report Citations:

DO# 0008	Title: Update of U.S. Army Research Institute's Officer Personnel Research Data Bases for 1997 and 1998
Program Area QR _X_ AOS ____ MT ____	DO-COR : Dr. Peter M. Greenston DO-ACOR: Project Director: Ms. Lori Ramsey (Fu Associates)
Status: Ongoing (September 28, 1998 - September 15 1999)	
DO Summary	
Background: ARI's Selection and Assignment Research Unit (SARU) required an update to a group of U.S. Army personnel databases that could be used as a ready source of career history information for analysis of career path issues such as attrition, retention, and promotion. In addition, the databases could serve as a complement to survey data collected to study leader development, organizational commitment, and other issues. In order to satisfy these research requirements, it is necessary to collect, process, and add current personnel and training data to the Officer Longitudinal Research Data Base (OLRDB) and the Officer Educational Testing Data Base (OSETDB). The OLRDB is constructed primarily of officer personnel data from the Officer Master File (OMF) and separation history from the Separation Officer Master File (SOMF). The OSETDB contains officer personnel data from the OMF and SOMF and academic aptitude measures in the form of standardized scores collected from the Educational Testing Service and the American College Testing Program.	
Project Objectives: The objective of this project is to collect annual source data files for 1997 and 1998 and to update the OLRDB and the OSETDB with officer personnel data maintained by Personnel Command (PERSCOM) and the Defense Manpower Data Center (DMDC). In addition, modifications are to be made to the existing update process to develop procedures that are Y2K compliant.	
Key Deliverables: Key project deliverables are (a) a 1997 and 1998 version of the OLRDB Longitudinal and Core data sets on computer tape, (b) a 1997 and 1998 version of the OSETDB on computer tape, (c) a final study report for the 1997 and 1998 OLRDB and OSETDB data sets, and (d) a CD-ROM copy of the OLRDB and OSETDB Longitudinal data sets.	
Findings/Outcomes:	
Report Citations:	

DO# 0009	Title: Training Base Attrition Study - I
Program Area QR _X_ AOS ____ MT ____	**DO-COR**: Dr. Trueman Tremble **DO-ACOR**: **Project Director**: Dr. Bill Strickland

Status: Ongoing (February 11, 1999 – October 31, 2000)
DO Summary

Background: In November 1998, the Chief of Staff of the Army (CSA) directed the Deputy Chief of Staff for Personnel (DCSPER) to conduct a study to determine why soldiers separate from the Army while at the initial entry training (IET) base. The directive called for study of the soldiers who leave service in calendar year (CY) 1999.

When ARI received this tasking, it had already initiated an effort sponsored by the Assistant Secretary of the Army, Manpower and Reserve Affairs (ASA (M&RA)) to study first-term attrition issues known as "First Term Recruiting and Training Excellence" (or First Rate, see DO#6). The objective of First Rate is to determine the causes of attrition during the first term of enlistment. Central to achievement of First Rate's objective is the collection of data on a cohort of first-term soldiers over the course of the initial enlistment period, beginning with entry at Army reception battalions and ending with exit from service or term completion.

The plans underway for First Rate provide the start for a timely response to the CSA tasking. The types of data obtained through the established First Rate procedures, however, reflect only part of the attrition equation. That is, they represent reasons and explanatory factors for attrition as perceived by the soldiers, especially soldiers who are separating. The other part of the equation reflects the views of the organization. Response to the CSA request will include assembly of official views on the soldiers who leave service. Linking soldiers' own views with official views may help clarify reasons for attrition and suggest strategies for controlling attrition rates.

The purpose of this effort is to obtain the information for a focused and timely response to the CSA tasking. The outlined work adds to the sample of incoming soldiers who are studied while in training base in CY99. In addition, it undertakes work envisioned but not yet initiated for First Rate so that the expected products are used to respond to the CSA request about IET attrition. Finally, it calls for collection and use of information not originally planned for First Rate – specifically, personnel data from official records.

Project Objectives: The objective of this delivery order is to determine why soldiers leave the Army while in the entry training base.

Key Deliverables: Key project deliverables consist of:
1. Two expanded progress reports.
2. Briefing materials supporting the expanded progress reports, for ARI use in presenting updates to the DCSPER.
3. A final Technical Report.
4. Briefing materials describing the study's findings, suitable for presentation to the Chief of Staff.

Findings/Outcomes:

Report Citations:

DO# 0010	**Title**: Task Knowledge Commonality Model (TKCAM) Application for MOS 11B, MOS 11H, and MOS 11M
Program Area QR _X_ AOS ___ MT ___	**DO-COR**: Mr. Bill Badey **DO-ACOR**: **Project Director**: Dr. Bill Strickland (with Mr. Alan Akman of Akman Associates)

Status: Completed (February 18, 1999 – September 30, 1999)
DO Summary

Background: Occupational mergers or shred-outs require updates to officer and enlisted individual and advanced technical task training. AR 611-1, Military Occupational Classification Structure and Implementation (Sep 97), requires documentation of occupational restructures as well as updates to job descriptions contained in various Army Regulations and Pamphlets. The Task Knowledge Commonality Model (TKCAM) is a tool designed specifically to allow users to analyze the feasibility of occupational mergers or shred-outs, to define new occupational structures, and to assist in the initial identification of tasks which can be considered critical to individual and unit survival on the battlefield.

    The Commandant, United States Army Infantry School (USAIS), Fort Benning, GA, is considering the merger of MOS 11B (Infantryman), MOS 11H (Heavy Antiarmor Weapons Infantryman), and MOS 11M (Fighting Vehicle Infantryman) to improve the efficiency of field combat operations. He requested ARI's assistance in applying the TKCAM methodology to help determine the advisability of carrying out the proposed merger.

Project Objectives: The project had three objectives:
1. Present a comprehensive course of instruction on TKCAM principles and practices at the USAIS.
2. Validate TKCAM user findings made by the USAIS.
3. Collect and provide lessons learned and proposed changes to improve the TKCAM USER'S MANUAL design and processes.

Key Deliverables: Key deliverables were as follows:
1. Briefing to the Office of Infantry Proponency
2. TKCAM Summary Report
3. Observations and Lessons Learned Letter Report

Findings/Outcomes: As noted by MG Ernst, CG USAIC, in a Certificate of Appreciation, "Based upon . . .the Task Knowledges Commonality Analysis Method, the Infantry is now in a position to speak with facts on the question of MOS restructure feasibility."

Report Citations:
None.

DO# 0011	Title: Preparation of ARI Special Report on the Enlisted Personnel Allocation System (EPAS)
Program Area QR _X_ AOS ___ MT ___	**DO-COR**: Dr. Peter Greenston **DO-ACOR**: **Project Director**: Dr. Mary Ann Lightfoot

Status: Ongoing (April 13, 1998 – December 31, 1999)
DO Summary
Background: ARI required a description of EPAS and how it fits within Army personnel classification research, development, and operational systems. The special report should be for an audience of Army managers—military and civilian, with diverse backgrounds. The "story" of EPAS includes what it is, how it works, what it will do for the Army when it is operational, and how it can be enhanced in the near future to provide even greater utility and efficiency. EPAS is an algorithm, implemented by linear programming software, which optimizes the Army's enlisted personnel classification system, while accounting for realistic constraints. EPAS was designed, developed, and tested by ARI over 15 years. It is currently being installed in the Army's operational recruit selection and classification mainframe software called REQUEST.
Project Objectives: The objective of this project is to prepare an ARI Special Report that describes EPAS development and its role in improving classification in the Army. The audience for this special report is Army management.
Key Deliverables: The key deliverable is an ARI Special Report.
Findings/Outcomes:
Report Citations:

DO# 0012	Title: Data Collection Support for TRADOC-99-CEP-0101, Manned and Unmanned Aerial Platform Operations on the Digitized Battlefield (Air Maneuver Recon Teams)
Program Area QR _X_ AOS ____ MT ____	**DO-COR**: Dr. William Howse **DO-ACOR**: **Project Director**: Dr. Deirdre J. Knapp (with Mr. John Woods of Carmel Applied Technologies, Incorporated)
Status: Ongoing (August 5, 1999 – February 28, 2000)	
DO Summary	

Background: The Air Maneuver Battle Lab (AMBL) is conducting TRADOC-99-CEP-0101, Manned and Unmanned Aerial Platform Operations on the Digitized Battlefield. It is the third in a series of investigations on this subject under the Training and Doctrine Command (TRADOC) Concept Experimentation Program. This effort is commonly referred to as MUM-III. The ARI Rotary Wing Aviation Research Unit (ARI-RWARU) provided support for MUM-I (TRADOC-CEP-97-0101) and MUM-II (TRADOC-CEP-98-0104), and is providing support for MUM-III. Experimentation is being conducted by means of operation of interactive virtual simulations of manned and unmanned rotary wing aircraft in a Distributed Interactive Simulation (DIS) synthetic environment. Major simulation systems anticipated for use in MUM-III include the Advanced Tactical Combat Model (ATCOM), the Comanche Portable Cockpit (CPC), and the Rapid Prototyping Mission Simulator (RPMS). The effort explores the potential increases in operational effectiveness that can be gained through cooperative teaming of dissimilar systems to accomplish reconnaissance missions.

Although most support for this effort is provided by ARI personnel, additional manpower is required to operate and monitor the automated data collection systems during the execution of simulation exercises and to perform data reduction functions during and after simulation exercises. It is imperative that data reduction be accurately performed during and at the close of each simulated mission and immediately following the data collection phase of the project.

Project Objectives: The objective of this delivery order is to ensure correct and complete collection of data from a real-time virtual simulation network and to perform data reduction processes as rapidly as possible.

Key Deliverables: Key deliverables are a Summary data archive and Measures of Performance (MOPs)

Findings/Outcomes:

Report Citations:

DO# 0013	Title: Automated Data Collection System Modification and Development	
Program Area QR _X_ AOS ____ MT ____	**DO-COR**: Dr. William Howse	
	DO-ACOR:	
	Project Director: Dr. Deirdre J. Knapp (with Dr. David Skipper of Bevilacqua Research Corporation)	
Status: Ongoing (August 5, 1999 – February 28, 2000)		
DO Summary		
Background: The U.S. Army Research Institute Rotary Wing Aviation Research Unit (ARI/RWARU) at Ft. Rucker Alabama has been tasked to support MUM III exercises at the Aviation Battle laboratory. This support includes the collection and analysis of human factors data related to soldier performance during the exercises. ARI plans to use the DCAT automated data collection software to help perform this task. The AEMoS software has been used in the past, however, and several of the capabilities of AEMoS must be integrated with the new DCAT software to allow comprehensive data collection and analysis capability.		
Project Objectives: The objective of this effort is to combine features of the AEMoS and DCAT data collection systems for use in support of the MUM-III exercises.		
Key Deliverables: Key deliverables are the software source and executable code.		
Findings/Outcomes:		
Report Citations:		

Appendix A
ARI COMPRS-II Program Descriptions

Quick Reaction (QR) Program

Applicable Areas. The QR program is intended to give ARI a quick-response capability to perform short-term research or studies and analysis dealing with manpower and personnel issues for which the necessary in-house capability is not available. The QR Program may only be used for the procurement of non-personal services to perform the tasks specified in the DO, subject to the limitations set forth below.

Conditions. Because this program is intended to resolve manpower and personnel issues that can be studied in a short time, the following conditions will normally apply:

- Each of the QR Program DOs shall be completed within the period of time specified in the DO, with the maximum allowable completion normally being within a 12-month period from the date of the DO.

- Each task of the DO shall be completed by HumRRO or its subcontractor within the total time allocated and a final report prepared and delivered.

- Unless otherwise stated in the DO, the tasks to be performed by the Contractor shall include a meeting with ARI at Alexandria, Virginia or at an ARI Field Unit at the start of, and at the completion of, each of the QR Program DOs.

Attitude and Opinion Survey (AOS) Program

Applicable Areas. The AOS program is intended to give ARI the ability to conduct surveys to provide information for accession and force management decision-making. This information can only be obtained through surveys of the target populations and may require updating due to changing population dynamics and attitudes in the various population segments.

Conditions. Because this program is intended to provide information quickly to resolve manpower and personnel issues, the following conditions shall normally apply:

- Each of the AOS efforts shall be completed within the period of time specified in the DO, with the maximum allowable completion normally being within a 12-month period of the date of the DO or an 18-month period if Office of Management and Budget (OMB) approval is required. Each AOS survey shall be performed using standard random sampling procedures or other appropriate sampling techniques.

- The tasks written by the Government in each AOS Program SOT shall include a statement of the target group for the survey. A target group may be defined as, for

example, all males, age 16-21 years old, in high school or graduated, and having positive propensity to enlist in any military service. The Contractor shall prepare as part of its response to the SOT, the necessary screening and sampling methodologies to assure that the target group requirements are met.

- If specified in the SOT and subsequent DO, the Contractor shall prepare a survey instrument. The Government may, at its discretion, construct a proposed survey instrument and submit it to the Contractor for review and recommended changes. The approved survey instrument shall be administered by the Contractor to the target population, or a sample thereof. All reproduction, survey administration, analysis, and report generation costs shall be included in the Contractor's RFDO for an AOS survey.

- The ability to conduct surveys under the AOS program may depend on ARI obtaining OMB approval to collect the information from the public. If OMB approval is required, and if such approval is not obtained, the survey shall not be conducted. The Contractor will be notified by the Government of the status of OMB approval. Surveys involving military personnel do not require OMB approval. ARI will make the determination of approval authority prior to an SOT being issued and will clearly state in the SOT if survey administration is contingent upon any other approval authority.

- When the final survey instrument is received by the Government, it may be necessary for the DO COR to submit the survey instrument to OMB for approval. The approval process may require from four to six months. Part of the OMB submission is a detailed description of the sampling plan, including burden hours, sampling methodology, non-response analysis, etc. The Contractor shall prepare the necessary documentation in accordance with the SOT and DO requirements and submit it to the DO COR who will submit it through agency channels.

- Each DO task shall be completed by the Contractor within the time allocated and a final report delivered. The final report shall contain copies of any appropriate verbatim responses of survey participants. Unless otherwise stated in the DO, the tasks to be performed by the Contractor shall include a meeting with ARI in Alexandria, Virginia or other ARI Field Unit locations at the start of, and at the completion of, each AOS DO.

- At all times the contractor will protect the confidentiality of the survey responses.

- If OMB approval is not received, the Contractor will be paid only for those tasks in the DO which are completed, and which do not require an approved survey instrument. Each AOS DO will usually contain at least two phases as follows:

> Phase I: Preparation. The tasks under Phase I will be the review or development of survey instruments, sampling methodology, preparation of approval packet (if required in the DO), and other items necessary for preparation of the survey administration.

Phase II: Survey Administration, Analyses, and Reporting. Upon receipt of survey approval, Phase II will involve the tasks necessary to conduct the survey, compile and analyze the data, prepare reports, and conduct in-person presentation of results (if required in the DO). Phase II shall always be contingent upon receipt of proper approval. If such approval for the survey is not obtained, Phase II will not be authorized and no payment for any tasks under Phase II will be made to the Contractor.

Medium-Term (MT) Program

Applicable Areas. The MT Program is intended to give ARI the ability to conduct a limited number of research or studies and analysis efforts whose duration would not normally exceed 24 months after HumRRO receives a DO. The MT program may only be used for the procurement of non-personal services to perform the tasks specified in the DO, subject to the limitations set forth below.

Conditions of MT Program. This program is intended to resolve problems associated with manpower and personnel issues which require a somewhat longer period of performance than the QR program. The following conditions shall normally apply:

- Each of the MT efforts shall be completed within the period of time specified in the DO, with the maximum period normally being 24 months from the date of the DO.

- Each task of the DO shall be completed by the Contractor within the total time allocated and a final report delivered. Unless otherwise stated in the DO, the tasks to be performed by the Contractor shall include a meeting with ARI, in Alexandria, Virginia or at ARI Field Units, at the start of, and at the completion of, each MT Program DO.